REMARKS

Claims 1-4 and 6-7 are pending in this application, of which claim 1 has been amended. Claim 5 has been canceled. No new claims have been added.

Claims 1-7 stand rejected under 35 U.S.C. § 103(a) as unpatentable over **APA** in view of U.S. Patent 5,513,395 to Chlebek et al. (hereafter, "**Chlebek et al.**").

Applicants respectfully traverse this rejection.

Chlebek et al. discloses a toilet having a set section that includes a bowl with a bottom discharge opening. The toilet also includes a source of flush water for rinsing the bowl and removing waste through the discharge opening into a waste storage tank. A pump provides the flush water through a nozzle which directs the flush water into the bowl. A check valve is associated with discharge nozzle to prevent flush water from inadvertently leaking into the bowl. The check valve is capable of being used with either a manually actuated pump or a power assisted pump and reduces the force required by the pump to maintain the valve open than to initially open it.

FIG. 4 shows a magnet 94 and a striker pin 96 which is attracted to the magnet 94. Column 6, lines 44-58 disclose:

> Because the magnet 94 and the striker pin 96, which is a ferrous material such as steel, are incorporated into the check valve 56, the valve spring 88 is not needed to force and ensure sealing engagement between the valve seat 82 and the plunger 84. Rather, this engagement is caused by the magnetic attraction between the magnet 94 and the striker pin 96. The purpose of the valve spring 88 is to bias the plunger 84 to that point where the magnet 94 is close enough to the striker pin 96 so that the magnetic attraction between the two will be great enough to cause the sealing engagement of the valve seat 82 with the engagement surface 86 of the

> plunger 84. Preferably, the magnet 94 and the striker pin 96 will be in contact with one another when sealing engagement is fully established.

This teaches away from the present invention as recited in claim 5, which recites that the interval between the magnet and the non-magnetic member is 0.05-0.15 mm when the valve is closed.

The Examiner has urged that it would be obvious to one of ordinary skill in the art "to have the interval of **APA** and **Chlebek et al.** to be 0.05-0.015 mm," and that "one of ordinary skill in the art, furthermore, would have expected applicant's invention to perform equally well with the disclosed interval, between the magnet and the member, which provides a magnetic force that holds the valve firmly up in a closed position."

Applicants respectfully disagree. Applicants submit that one of ordinary skill in the art would not take the teachings of **Chlebek et al.**, which has zero clearance between the magnet 94 and the striker pin 96 when "sealing engagement is firmly established," and combine them with **APA**, which discloses no magnet, to arrive at the closed valve clearance of 0.05-0.015 mm in the present invention.

The reasons for the clearance is to prevent unseating of the valve disk 20 on gasket 15 when the valve is closed. Furthermore, the stated range of the clearance is to prevent adequate attractive force to keep the valve closed and yet also not permit an attractive force which is too great to permit opening of the valve when desired. Thus, the claimed range of the clearance is at least partially dependent on how the attractive force between the magnet and the non-magnetic member changes with distance.

Accordingly, claim 5 has been canceled and its limitations have been added to claim 1.

Thus, the 35 U.S.C. § 103(a) rejection should be withdrawn.

Claim 5 stands rejected under 35 U.S.C. § 103(a) as unpatentable over **APA** and **Chlebek et al.**, and further in view of U.S. Patent 5,050,639 to Sorensen (hereafter, "**Sorensen**").

Applicants respectfully traverse this rejection.

Sorensen discloses an overfill protecting arrangement for a liquid storage tank. Column 3, lines 17-24 disclose that, "in the closing position of the valve body 10, where this engages the valve seat 9, the air gap between the magnet 20 and the armature is almost closed."

As noted above, **Chlebek et al.** teaches no air gap (zero clearance) between magnet 94 and striker pin 96 when sealing engagement is fully established. Thus, the teachings of **Sorensen**, **Chlebek et al.** and **APA** cannot be combined to teach the clearance specified in claim 5 of the instant application.

Thus, the 35 U.S.C. § 103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 1-4 and 6-7, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

ARMSTRONG, KRATZ, QUINTOS,
HANSON & BROOKS, LLP

William L. Brooks
Attorney for Applicant
Reg. No. 34,129

WLB/ak
Atty. Docket No. **031345**
Suite 1000
1725 K Street, N.W.
Washington, D.C. 20006
(202) 659-2930

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